

WHAT IS CLAIMED IS:

1. Spring element for the supporting of sitting and reclining surfaces, comprising:

5 a base body including a base plate adapted to be attached to a foundation member, a bearing disc support for the supporting of sitting and reclining surfaces, and spring arms interconnecting the base plate and the bearing disc support, wherein the spring arms are spaced apart to define at least two gaps; and

10 a support body mounted on the base body and including at least two support arms, the support body being rotatable about an axis relative to the base body to displace the support arms between a supporting position adjacent respective spring arms to limit the deflection thereof, and a non-supporting position wherein the support arms are disposed in respective gaps.

15 2. The spring element according to claim 1, wherein the support body includes a bearing ring support seated on the base plate, the support arms extending from the bearing ring support.

20 3. The spring element according to claim 2 wherein the support body includes a support disc disposed adjacent the bearing disc support; each support arm including a first arm portion extending from the bearing ring support in a direction away from the axis, and a second arm portion extending inwardly to the support disc from an outer end of the first arm portion.

4. The spring element according to claim 3, further including a disc attachment for attaching the support body to the spring body, the disc attachment including projecting arms each having a protrusion engaged in respective openings of the bearing disc support, the disc attachment further including a central peg rotatably mounted in a central opening of the support disc.

5. The spring element according to claim 4 wherein the projecting arms correspond in number to the spring arms.

6. The spring element according to claim 1 further including a locking mechanism for frictionally locking the support body in respective rotational positions thereof.

7. The spring element according to claim 6 wherein the locking mechanism comprises angularly spaced protrusions in one of the base body and the support body and angularly spaced openings in the other of the base body and the support body.

8. The spring element according to claim 2 wherein the bearing disc support includes a recess, a mattress lifter including a lifter back disposed in the recess and a spring for biasing the lifter back out of the recess in a direction away from the bearing ring support.

9. The spring element according to claim 8 wherein the mattress lifter includes two arc-shaped lifter backs disposed in respective arc-shaped recesses formed in the bearing disc support, the spring comprises two arm springs connecting the lifter backs to the bearing disc support.

10. The spring element according to claim 9 wherein the bearing disc support includes a plurality of pins, each pin being connected to an end of an arm spring and to an end of a spring arm.

5 11. The spring element according to claim 1 wherein the support body is formed of plastic.

12. The spring element according to claim 1 wherein the spring body is formed of plastic.

13. A spring element for the supporting of sitting and reclining surfaces, comprising:

10 a base body including a base plate adapted to be attached to a foundation member, a bearing disc support for the supporting of sitting and reclining surfaces, and spring arms interconnecting the base plate and the bearing disc support, wherein the spring arms are spaced apart to define at least two gaps;

15 a support body positioned between the base plate and the bearing disc support and including a bearing ring support seated on the base plate, a support ring disposed adjacent the bearing ring support and at least two support arms extending from the bearing ring support to the support ring, the support body being rotatable about an axis relative to
20 the base body to displace the support arms between a supporting position adjacent respective spring arms to limit the deflection thereof, and a non-supporting position wherein the support arms are disposed in respective gaps; each support arm including a first arm portion extending outwardly from the support disc in a direction generally away
25 from the axis and toward a plane of the support ring, and a second arm

portion extending from an outer end of the first arm portion in a direction generally toward the axis and toward the plane of the support ring, the first and second arm portions together forming an apex facing toward the axis; and

5 an adjusting disc disposed inside of the spring arms and the support arms and being connected to the spring arms in a manner preventing rotation of the adjusting disc relative to the base body, the adjusting disc extending into the apexes of the support arms, the adjusting disc including arc-shaped adjusting ridges projecting toward the support
10 ring and gradually increasing in height in a circumferential direction with reference to the axis to provide a support for engagement with the second arm sections of the support arms to reduce the flexibility thereof when the support arms have been rotated to their support positions.

15 14. The spring element according to claim 13 wherein the adjusting ring includes diametrically opposite pairs of projections extending generally radially with reference to the axis, each pair of projections defining a space receiving a respective spring arm.

20 15. The spring element according to claim 14 wherein the adjusting ring further includes a tongue disposed between the projections of each pair of projections and arranged to press against the respective spring arm.

25 16. The spring element according to claim 14 wherein the bearing disc support includes a central opening, the support body including a toggle disposed in the central opening for enabling the base body to be manually rotated.

17. The spring element according to claim 16 further including a locking mechanism for frictionally locking the support body in respective rotational positions thereof.

5 18. The spring element according to claim 17 wherein the locking mechanism comprises angularly spaced protrusions in one of the base body and the support body and angularly spaced openings in the other of the base body and the support body.

19. The spring element according to claim 18 wherein the protrusions and openings are formed in the support ring and the bearing disc support.

10 20. The spring element according to claim 13 wherein the bearing disc support includes a recess, a mattress lifter including a lifter back disposed in the recess and a spring for biasing the lifter back out of the recess in a direction away from the bearing ring support.

15 21. The spring element according to claim 20 wherein the mattress lifter includes two arc-shaped lifter backs disposed in respective arc-shaped recesses formed in the bearing disc support, the spring comprises two arm springs connecting the lifter backs to the bearing disc support.

20 22. The spring element according to claim 21 wherein the bearing disc support includes a plurality of pins, each pin being connected to an end of an arm spring and to an end of a spring arm.